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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,375	12/31/2003	Eric D. Blom	08211/0200346-US0/P05774	4891
38845	7590	06/27/2005	EXAMINER	
DARBY & DARBY P.C.			CHANG, DANIEL D	
P.O. BOX 5257			ART UNIT	
NEW YORK, NY 10150-5257			PAPER NUMBER	
			2819	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/750,375

Applicant(s)

BLOM, ERIC D.

Examiner

Daniel D. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7-9,11,13,14,16 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,4-6,10,12,15 and 17-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/10/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transistor and the resistor of the first current source circuit must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 3, 17, and 20 are objected to because of the following informalities: Claim 3, line 5, the recitation, "a control voltage" is missing essential structural cooperative relationships of

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elements, such omission amounting to a gap between the necessary structural connections. It is not clear where the control voltage is applied. Also, as for the recitation, “a low threshold”, it is not clear which low threshold it is referring to.

Claim 3, lines 5-8, the “if” and “else” clause need to be rewritten in order to particularly point out and distinctly claim the subject matter.

Claim 17, lines 6-8 and lines 21-24, the “if” and “else” clause need to be rewritten in order to particularly point out and distinctly claim the subject matter.

Claim 20, line 2, the recitation, “a voltage” is missing essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. It is not clear where the voltage is applied. Also, as for the recitation, “a first threshold” and “a second threshold”, it is not clear which threshold it is referring to.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 7, 8, 11, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hastings (US 5,457,411).

Regarding claim 1, Hastings discloses in Fig. 7, a tri-level decoder circuit comprising:

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a first decoder circuit (56, 52, 50, 53, 57) that is coupled between an input node (VIN) and a first output node (VOP), wherein the first decoder circuit includes:

a first switch circuit (56) that is coupled to the input node; and

a first current mirror circuit (52, 50, 53, 57) that is coupled between the first switch circuit and the first output node (since part of the current mirror is connected between the first switch circuit and the first output node); and

a second decoder circuit (55, 46, 48, 47, 53) that is coupled between the input node and a second output node (VON).

Regarding claim 3, Hastings discloses in Fig. 7, that the first decoder circuit further includes a first current source circuit (57) coupled to the first switch circuit, and

wherein the first switch circuit is configured to:

if a control voltage exceeds a low threshold, reduce a resistance between a first port of the first current mirror circuit and the first current source (inherent for the circuit with transistor connected to the current mirror); else

isolate the first port of the first current mirror circuit from the first current source (inherent for the circuit with transistor connected to the current mirror).

Regarding claim 7, Hastings discloses in Fig. 7, that the tri-level decoder circuit further comprising:

a driver circuit (47, 49, 51, 53) that is coupled to a control node (VIN) associated with the input node, wherein the driver circuit is configured such that if the input node does not receive a driving input signal, the driver circuit actively drives the control node (inherent).

Regarding claim 8, Hastings discloses in Fig. 7, that the driver circuit comprises two current sources (47, 53) and two transistors (49, 51), wherein each of the two transistors is configured to operate as a diode.

Regarding claim 11, Hastings discloses in Fig. 7, that the second decoder circuit includes:  
a second switch circuit (55) coupled to the input node (VIN);  
a second current source circuit (53) coupled to the second switch circuit; and  
a second current mirror circuit (46, 47, 53) coupled between the second switch circuit (55) and the second output node (since part of the current mirror is connected between the second switch circuit and the second output node).

Claim 20 is similarly rejected as above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hastings.

The teachings of Hastings have been discussed above.

Regarding claims 9, 13, and 14, Hastings discloses all the elements and means of the claimed invention except for the filter circuit.

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However, it is well known in the art that a filter circuit with a capacitor and/or resistor eliminates or reduces signal noise. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have provided the circuit of Hastings with a filter circuit in order to eliminates or reduces signal noise. It is an obvious matter of engineering modification.

Regarding claim 16, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a capacitance value of .5 picofarads, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

#### ***Allowable Subject Matter***

Claim 17-19 would be allowable if the claim objections are corrected.

Claims 2, 4-6, 10, 12, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

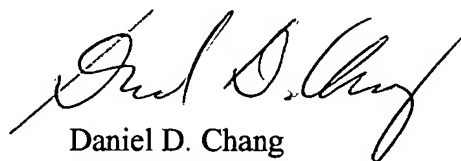
#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (571) 272-1801. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel D. Chang  
Primary Examiner  
Art Unit 2819

dc

**DANIEL CHANG  
PRIMARY EXAMINER**